Anti-meat narratives have officially made it to the science museum. Here is content from a recent newsletter from the Museum of Science Boston:

The Museum of Science Boston seems to have an unbalanced promotion of lab meat. If they are going to highlight lab meat, I urge them to also have some nutritionists, livestock scientists and local farmers to the museum to talk about the many benefits of meat and livestock to our food and ecosystem.

I watched a video that the Museum of Science posted, called Tomorrow's Menu, which seemed to be an ad for the alt-meat company, Tender Food. When describing his fake meat product, Tender Food's CEO Christophe Chantre says: "in a variety of ways, this is just so much more sustainable and healthy than what we have today." Chantre explains to the host how his product goes through an ultra-processing "cotton candy"-like machine to spin out the pork-like strands.

Chantre then dives into misinformation. He states that ⅔ of our agricultural land is used to grow crops to feed agricultural animals. This not true. The reality is that about 60% of agricultural land on the planet simply cannot grow crops (because it may be too rocky, too hilly, too dry, etc) but we can graze livestock on it. That is the truth. So, unlike what is described in the video, if you simply remove grazing animals like cattle you can't just "replace them with something else". That's a lie.

The host of the video, Boston-based chef Douglass Williams, didn't ask any questions about what the energy requirements were to make the product, nor did he ask any questions about nutritional

comparisons to real meat. I was also unable to find any nutrition information on Tender Foods' website. The whole video was just a fluff piece. I expect more from the Museum of Science.

I suspect the March 22 webinar, "What's in the Dish? The Future of Cultivated Meat" to be a similarly disappointing discussion. Another promotion of alt-meat instead of scientists asking the hard questions.

Simplistic and/or biased coverage frequently denigrates nutrient-dense meat, dairy, and eggs, a mistake that must be urgently corrected. **As a practicing "real food" dietitian and the founder of the Global Food Justice Alliance, I am calling on The Museum of Science and all scientific outlets to report the facts – nutritious, affordable foods like meat, dairy, and eggs are uniquely healthy and cannot be replaced by plants, especially not ultra-processed and expensive fake "substitutes".**

It is okay to report on plant based products and cultivated meat, but they must also share about the benefits - environmental and nutritional - of animal foods. Despite frequent misunderstanding and misinformation, meat, dairy, and eggs can also be good for the planet and are key to achieving true sustainability.

HERE ARE THE FACTS:

ANIMALS ARE IMPORTANT FOR THE ENVIRONMENT.

Livestock play a crucial role in maintaining ecological balance and supporting environmental sustainability. Grazing animals, such as cattle and sheep, contribute to the maintenance of grasslands by promoting biodiversity. These animals act as natural landscapers, preventing the encroachment of shrubs and ensuring a healthy balance in ecosystems. Additionally, their manure serves as a valuable fertilizer, enhancing soil fertility and promoting the growth of diverse plant species. Integrating livestock into sustainable agricultural systems helps create a closed nutrient cycle, reducing the reliance on synthetic fertilizers and contributing to soil health.

Furthermore, the responsible management of livestock can support local economies and conservation efforts. In many regions, traditional pastoralism fosters a symbiotic relationship between communities and their natural surroundings. Indigenous practices of animal husbandry often involve rotational grazing, allowing ecosystems to regenerate and preventing soil erosion. When managed sustainably, livestock farming can provide economic opportunities for rural communities while safeguarding landscapes from degradation.

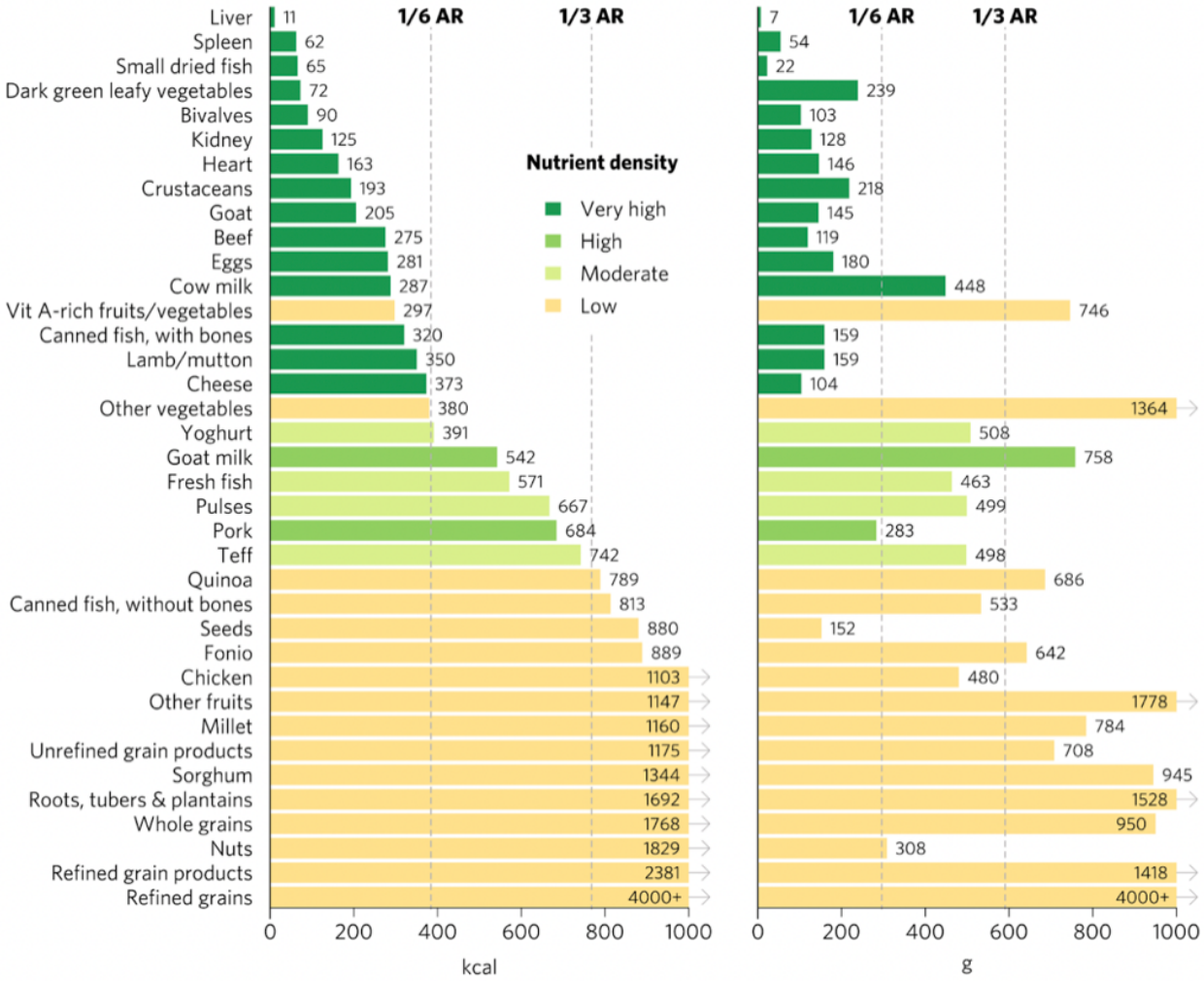
Here in New England, there are numerous examples of regenerative livestock producers who are producing high quality meat while improving ecosystem function. This conversation is critical to have, especially at the Museum of Science Boston, which should be an unbiased institution.

ANIMAL FOODS ARE PART OF A NUTRITIOUS DIET.

Nutrient deficiencies are more common in vegan and vegetarian populations, and in most cases, meat is the only or best way to solve them. Plus, in many parts of the United States and the world, people don't have the luxury of pushing away nutritious meat. Policies and media messages taking meat away from those already receiving too little nutrients will increase the devastating health consequences already being experienced, especially for women and children.

Iron and B12 are two of the most common nutrient deficiencies worldwide, and meat is the best source of these nutrients. Multiple studies, experts, and international organizations agree that nutrient-dense meat, dairy, and eggs are essential in healthy diets. We also know that as people have more access to meat and other animal-sourced foods, they live longer, healthier lives.

Animal-sourced foods are also the only sources of retinol, heme iron, vitamin B12 and vitamin D and the most bioavailable sources of zinc and protein. Other than sea algae (which is quite difficult to source and has its own sustainable production issues), animal foods are the only sources of essential fatty acids (DHA and EPA) needed for healthy brain function. They also contain uniquely potentially beneficial compounds including creatine, anserine, taurine, cysteamine, and CLA. The chart below shows the massive increases in calorie consumption that would be needed to meet recommended intakes for critical micronutrients.



Calories and grams needed to provide an average of one-third of recommended intakes of vitamin A, folate, vitamin B12, calcium, iron, and zinc for women 15–49. Source: Beal and Ortenzi. (Under review). Priority micronutrient density in foods

Plant-based meat alternatives are new to our food system and we don't have long term studies showing their safety. They are energy intensive, require massive resources to produce, and can possibly emit more greenhouse gasses than typical meat.

Fork & Good, the company featured in the talk, has zero information on their website about the nutrition of their product nor details on the inputs and energy it takes to produce it.

True scientists question their hypothesis, compare both sides of the issue, and are always curious about all information available. If the Museum of Science Boston is to truly represent science, they should present more than one side to the alt-meat story. They should question whether alt-meat is really the panacea it's claiming to be.

If you believe the museum should include information from nutritionists, livestock scientists and local farmers to share about the many benefits of meat and livestock to our food system, leave a

comment below.

Become a member!

RETHINKING THE ENVIRONMENTAL IMPACT OF MEAT SWAPS